

CLAIMS

What is claimed is:

1. An alarm device, comprising:
a monitoring device, comprising a sensor and a rotatable elongate element for indicating a sensed condition, wherein the rotatable elongate element for indicating the sensed condition is rotatable by the sensor responsive to a change in the sensed condition;
wherein at least a portion of the rotatable elongate element is electrically conductive;
a circuit connecting a power source, at least one switch element and at least one warning device, wherein the at least one switch element is positioned relative to the rotatable elongate element such that when a selected condition is sensed by the sensor, the rotatable elongate element for indicating the sensed condition physically contacts the at least one switch element allowing an electric current from the power source to pass through the rotatable elongate element;
wherein the at least one switch element is configured to rotate to adjust the selected condition at which the rotatable elongate element will contact the at least one switch element; and
wherein the at least one warning device is configured to emit a signal when the electric current is transmitted to the at least one warning device.
2. The alarm device of claim 1, wherein the rotatable elongate element is a needle of a gauge.
3. The alarm device of claim 1, wherein the at least one warning device is selected from the group consisting of a light, a flashing light, a light emitting diode, a horn, a buzzer, a bell, a recorded voice, or any combinations thereof.
4. The alarm device of claim 1, wherein a circuit trace of the circuit is connected to the rotatable elongate element.

5. The alarm device of claim 1, wherein the at least one switch element comprises:
a first switch element, wherein the first switch element is positioned relative to the rotatable elongate element such that when a first selected condition is sensed by the sensor, the rotatable elongate element for indicating the sensed condition physically contacts the first switch element allowing an electric current from the power source to pass through the rotatable elongate element; and
a second switch element, wherein the second switch element is positioned relative to the rotatable elongate element such that when a second selected condition is sensed by the sensor, the rotatable elongate element for indicating the sensed condition physically contacts the second switch element allowing an electric current from the power source to pass through the rotatable elongate element.

6. The alarm device of claim 5, wherein the at least one warning device comprises:
a first warning device, wherein the first warning device is configured to emit a first signal responsive to the rotatable elongate element contacting the first switch element; and
a second warning device, wherein the second warning device is configured to emit a second signal responsive to the rotatable elongate element contacting the second switch element.

7. The alarm device of claim 1, further comprising a manual switch connected to the circuit.

8. The alarm device of claim 1 wherein the sensor is a thermometer, a pressure sensor or a liquid level sensor.

9. An alarm device, comprising:
a monitoring device, comprising a sensor and a rotatable elongate element for indicating a sensed condition, wherein the rotatable elongate element for indicating the sensed condition is rotatable by the sensor responsive to a change in the sensed condition;
a circuit connecting a power source, at least one switch element, at least one latch circuit and at least one warning device, wherein the at least one switch element is positioned relative to the rotatable elongate element such that when a selected condition is sensed by the sensor, the rotatable elongate element for indicating the sensed condition contacts the at least one switch element allowing an electric current from the power source to pass through the rotatable elongate element; and
wherein the at least one warning device is configured to emit a signal when the electric current is transmitted to the at least one warning device.

10. The alarm device of claim 9, wherein at least a portion of the rotatable elongate element is electrically conductive.

11. The alarm device of claim 9, wherein the at least one switch element is configured to rotate to adjust the selected condition at which the rotatable elongate element will contact the at least one switch element.

12. The alarm device of claim 9, wherein the at least one switch element comprises:
a first switch element, wherein the first switch element is positioned relative to the rotatable elongate element such that when a first selected condition is sensed by the sensor, the rotatable elongate element for indicating the sensed condition physically contacts the first switch element allowing an electric current from the power source to pass through the rotatable elongate element; and
a second switch element, wherein the second switch element is positioned relative to the rotatable elongate element such that when a second selected condition is sensed by the sensor, the rotatable elongate element for indicating the sensed condition physically contacts the second switch element allowing an electric current from the power source to pass through the rotatable elongate element.

13. The alarm device of claim 12, wherein the at least one latch circuit comprises:
a first latch circuit electrically connected to the first switch element; and
a second latch circuit electrically connected to the second switch element.

14. The alarm device of claim 9, further comprising a manual switch connected in the circuit.

15. The alarm device of claim 9, wherein the at least one warning device is selected from the group consisting of a light, a flashing light, a light emitting diode, a horn, a buzzer, a bell, a recorded voice, or any combinations thereof.

16. The alarm device of claim 9, wherein a circuit trace of the circuit is connected to the rotatable elongate element.

17. The alarm device of claim 9, wherein the at least one warning device comprises:
a first warning device for emitting a first warning signal at a first selected condition; and
a second warning device for emitting a second warning signal at a second selected condition.

18. A temperature sensing device, comprising:
a dial-type thermometer, comprising a temperature sensor and a rotatable elongate element for indicating a sensed temperature, wherein the rotatable elongate element for indicating the sensed temperature is rotatable by the temperature sensor responsive to a change in the sensed temperature;
wherein at least a portion of the rotatable elongate element is electrically conductive;
a circuit connecting a power source, at least one switch element and at least one warning device, wherein the at least one switch element is positioned relative to the rotatable elongate element such that when a selected temperature is sensed by the temperature sensor, the rotatable elongate element for indicating the sensed temperature physically contacts the at least one switch element allowing an electric current from the power source to pass through the rotatable elongate element; and
wherein the at least one switch element is configured for rotation to adjust the selected temperature at which the rotatable elongate element will contact the at least one switch element.

19. The temperature sensing device of claim 18, wherein the circuit further comprises at least one latch circuit.

20. The temperature sensing device of claim 18, wherein a circuit trace of the circuit is connected to the rotatable elongate element.